

03170
Please read the following instructions
and warnings carefully.

Keep this instruction manual for future reference.

Requires 2 AAA batteries (included).



For Technical Support Call 1-800-268-6237 or E-Mail at customerservice@summerinfant.com

For use with children from birth and up.

# INSTRUCTION MANUAL

# ONE SECOND EAR THERMOMETER

Thank you for purchasing the One Second Ear Thermometer. Before you start using your new Ear Thermometer, please read this operation manual thoroughly for the correct methods of usage especially section on Safety.

This manual should be kept on hand for easy future reference.

# **MARNING:**

- Use of this thermometer is not intended as a substitute for consultation with your physician.
- The thermometer is not waterproof! NEVER immerse into liquids.



THIS PRODUCT IS NOT A TOY. ADULT SUPERVISION IS REQUIRED. STORE AWAY FROM CHILD'S REACH.

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# **SAFETY**

### **Safety Precautions During Use**

- Do not drop, step on or subject the ear thermometer to any shock or vibration.
- Do not submerge this product in water or any other liquid.
- Do not use excessive force to insert the probe into the ear. Use of excessive force may injure the ear canal or the eardrum.
- Do not use a portable phone near the thermometer when you are taking the temperature as it will cause the thermometer to malfunction.

### Caution

- Do not disassemble or repair or remodel the ear scan.
- Do not discard batteries into the fire.

### When the Product Should Not be Used

- This thermometer is designed to take your body temperature through the ear canal only. Do not use it for any other purpose.
- Do not use the product on people suffering from ear diseases.
- Do not use the product while the ear canal is wet (e.g. after a swim or a bath).
- This product is not waterproof. Therefore, keep the product dry at all times.
- Do not operate the device outside the specified ambient temperature range 41°F-104°F(5°C to 40°C) and humidity range (15-95%RH)
- Do not store the ear thermometer outside the specified ambient temperature range -13°F-131°F(-25°C to 55°C) and humidity range (15-95%RH).

# **NOTES ON TEMPERATURE**

### Why Measure in the Ear?

Clinical studies have shown that the ear is an excellent site for taking body temperature because the temperature taken in the ear reflects the body's core temperature. Body temperature is regulated by the hypothalamus, which shares the same blood supply as the tympanic membrane. Changes in core body temperature are usually seen sooner in the tympanic membrane than in other places, such as rectum, mouth or under the arm.

# Advantages of taking temperature in the ear versus traditional sites:

- Axillary temperature readings only reflect skin temperature, which may not indicate the internal body temperature.
- Rectal temperature often lag significantly behind internal body temperature changes, especially at times of rapidly changing temperatures.
- Oral temperature is often influenced by eating, drinking, breathing through the mouth, or the inability of the person to close his/her mouth completely.

### Normal body temperature

Normal temperature refers to the body temperature of a healthy person. It differs among individuals and is affected by environmental conditions such as time of day, atmospheric temperature, activity before measurement, site of measurement e.g. ear, mouth, or armpit. We recommend that you determine your normal body temperature by measuring several times under the same conditions.

### **How Does the Ear Thermometer Work?**

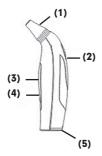
The Ear Thermometer measures the infra heat generated by the eardrum and surrounding tissues. Clinical research has shown that the ear is an ideal site for taking body temperature since the eardrum shares blood vessels with the hypothalamus; the part of the brain that controls body temperature. To help ensure accuracy, the Ear Thermometer takes 6 measurements within one second and displays the average temperature.

### Measuring difference for ear themometer (for reference only)

According to the explanation of ASTM-E1965, there might be some differences in reading results if the measuring position is different. The following drawing is taken from ASTM-E1965 for your reference (Fig.1).



# PARTS AND ACCESORIES INDEX



### **Main Body**

- 1. Probe
- 2. Start Button
- 3. LCD
- 4. O/I Button
- 5. Battery Cover

# **FEATURES AND EFFECTIVENESS**

### **Features**

- The ear thermometer is simple and convenient to use with one button operation.
- Loading of a probe cover is not required before taking a measurement, making the thermometer more user-friendly and more cost-effective.
- · Measures temperature in one second.
- Unique and slim design, following the contour of human's palm for easy handling.
- Comes with a large LCD for easy reading.
- Operated by two AAA batteries for easy replacement.
- Auto-off function helps you to save energy in the batteries.
- The ear thermometer is light and compact, allowing you to take it everywhere.

### **Effectiveness**

- Compared to traditional thermometers, which require several minutes to take the temperature, the ear thermometer takes only one second to display the measurement.
- It is safer to take the temperature in the ear, as there is no risk of infection caused by contact with mucous membrane in the oral cavity or the rectum as in conventional measurement.
- Operating environment from 41°F-104°F(5°C-40°C) makes it easy for you to take a measurement.

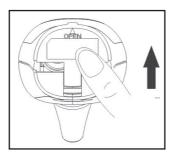
# PREPARATION BEFORE USE

#### 1. General

- Ensure that your ear is clean. If your ear is clogged with excessive earwax measurement may be inaccurate.
- Sudden change of ambient temperature may influence the measurement accuracy. For accurate measurement, try to store the ear thermometer in the same room where you usually take your temperature.
- For accurate measurement, take the temperature while you relax.
   Your temperature may increase after exercise or a bath.
- The right ear reading may differ from the left ear. Therefore, always take the temperature using the same ear.
- External factors may influence ear temperatures, including when an individual has:
  - -been lying on one ear or the other
  - -had their ear covered
  - -been exposed to very hot or very cold temperatures
  - -has just finished swimming or bathing
  - -has been wearing hearing aids or ear plugs
  - Should any of the above mentioned situations occurs, wait for 20 minutes prior to taking the temperature.

### 2. Inserting batteries

 Your Ear Thermometer requires two AAA batteries. To insert, remove the battery cover by sliding it away from the probe as shown in fig.3.

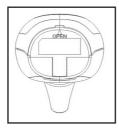


# **PREPARATION BEFORE USE (continued)**

 Place the battery in the battery compartment, making sure that it is positioned correctly according to the polarities indicated on the thermometer.(Fig.4)

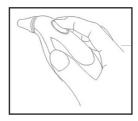


• Replace the battery cover by sliding it into place.(Fig.5)



### 3. Correct Holding Posture

 Hold the main body as shown in fig.6 so that you can press the button with your index finger.



# PREPARATION BEFORE USE (continued)

In the following situations, it is recommended that you take the temperature three times in the same ear. If the temperature happens to differ, use the highest reading. Be aware that slight variations .36°F-.54°F (0.2-0.3°C) can occur if consecutive measurements are taken.

- Infants 3 months and below
- Children under 3 years who have a condition such as a compromised immune system and for whom the presence or absence of fever is critical.
- When you are first learning to use the ear thermometer until you are comfortable with the technique and are obtaining consistent readinas.

### Caution

For individuals who have hair in their ears, please note that the measured temperature may be lower than the actual temperature.

# **USE OF YOUR PRODUCT**

### 1. Power on

- Press the O/I button.
- The thermometer will show the following display

The last memory reading will be displayed.

There will be a display for an automatic function test as indicated below

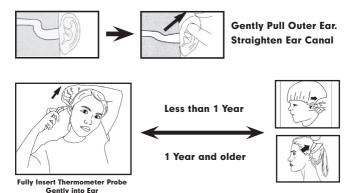
After the completion of the automatic function test, a beep sound will indicate the thermometer is ready for measuring the temperature

#### Caution

If no further operation is activated, the display goes off automatically 1 minute after activation, or after measuring the temperature.

# **USE OF YOUR PRODUCT (continued)**

### 2. Inserting the probe into the ear canal



For children aged 1 year or above and for adults:

- Pull the ear slightly backwards and insert the probe along the ear canal in a straight direction.
- Insert the probe until the body of the probe fully seals the ear canal and hold it there until measurement is completed.

For an infant less than 1 year old:

- Pull the ear diagonally behind to make the ear canal straight.
- Apply the tip of the probe straight against the ear canal. Hold in this position until measurement is completed.

For measuring your own temperature:

- Hold the main body of the thermometer and insert the probe along your own ear canal. Push the probe naturally against the ear canal and insert it further.
  - After confirming that the probe and the ear canal are in close contact, start the measurement.

# **USE OF YOUR PRODUCT (continued)**

### 3. Starting the measurement

- Press and release the O/I button.
- Ensure that the "ready to measure" sign "-\*\*1" is displayed and a
  beep sound is heard before measurement. If the START button is
  pressed before the sign is displayed, the thermometer will not start
  the measurement.
- It will beep once and measurement will begin.
- After one second, the ear thermometer will give out a beeping sound to signal completion of measurement. Remove the ear thermometer from the ear canal and check the reading on the display panel.
- If you want to repeat the measurement, start measuring after it beeps (about 10 seconds after the last measurement) and the "ready to measure" sign "-\*11" is displayed. You can repeat the process again from step 3 onwards.

### 4. Power off

 Power will be automatically turned if the thermometer is left unattended for 1 minute.

# **TROUBLESHOOTING**

If you encounter problems with the operation of your Ear Thermometer, please check the following points to see if they can be rectified. If the problem still persists, please contact the service center for servicing.

Do not disassemble or attempt to repair the thermometer yourself.

| Conditions                                       | Possible cause and solution   |
|--|---|
| Nothing is displayed after O/I<br>button pressed | Battery may be worn out. Replace with new battery. Battery may not be placed in the correct polarities. Place batteries according to the polarities indicated |

# TROUBLESHOOTING (continued)

| Conditions   | Possible cause and solution  |
|--|--|
| •  | Low battery signal. Replace<br>with new battery.   |
| Measurement cannot be made<br>or abnormal value is<br>displayed. | Tip of probe may be dirty or damaged. Clean the probe. Excessive earwax in the ear canal. Clean the ear canals with a cotton swab. Probe may be insterted incorrectly. Insert the probe correctly. Follow inserting the probe into the ear canal under "use of your product" page 8. If the problem still persists, send to service center for repair. |
| • Erre is displayed  | There may be a short circuit. Please contact service center. The ambient temperature has exceeded the specific range of 41°F-104°F(5°C-40°C).  |
| Measurement will not start<br>after pressing the button.         | Measurement is made when<br>the "••••" is not displayed.<br>Measure again after the sign<br>is displayed.  |
| Measured result is "Hi" or "Lo"                                  | <ul> <li>"Hi" is displayed when the body temperature is more than 107.6°F(42°C).</li> <li>"Lo" is displayed when the body temperature is less than 95°F(35°C).</li> </ul>  |

# PRODUCT CARE AND STORAGE

#### 1. General

- Clean off dirt in the main body with a clean, soft and dry cloth.
- Do not clean the main body with water nor a cleaner containing abrasive agents, thinner or benzene.
- · Before and after each use, clean the thermometer.

### 2. Batteries

- If the low battery indicator flashes during use, replace with new batteries, refer to page 5 under preparation before use point 2 on the procedure for replacement of new batteries.
- Remove the batteries if you will not be the product for a long period of time.

#### 3. Probe

- Clean the probes surface with a cotton swab slightly moistened with alcohol and immediately dry it with a clean cotton swab. After cleaning, allow at least 5 minutes to dry before using it again.
- Do not clean the probe with a paper towel or paper as it contains glass fiber, which may damage the lens at the tip of the probe.
- After cleaning, dry the probe thoroughly before store it.
- To assure a high level of accuracy, it is very important to keep the probe clean, dry and unchanged. Fingerprints, earwax. dust and other soiling compounds reduces the transparency of the window and results in lower temperature reading.
- Avoid touching the probe except when cleaning is required.
- As the probe is the most sensitive and delicate part of the thermometer, it is extremely important to ensure that a probe cover is always on the probe to protect it from dirt and damage.

### 4. Storage

 Do not store the ear thermometer under direct sunlight or in places where temperature and humidity are very high or very low, in dusty or wet places, or where the product be affected by a vibrating shock.

# **A BATTERY WARNING:**

Keep battery out of child's reach. Swallowing battery could be fatal. Battery should not be charged or placed in extreme heat as it may rupture. Used batteries should be disposed of properly.

## **NOTES ON TEMPERATURE**

Product
Battery Type
Accuracy
Measuring Range
Display Resolution
Operating Ambient Temperature Range
Relative Operating Humidity
Storage Environment
Relative Storage Humidity

One Second Ear Thermometer 2xAAA 1.5V .36°F(0.2°C) 89.6°F-109.22°F(32°C-42.9°C) 0.1° 41°F-104°F(5°C-40°C) 15 to 955°CH -13°F-131°F(-25°C to 55°C) 30 to 955°RH

The ear thermometer meets American Society for Testing and Materials accuracy standards (ASTM) with requirements specified in ASTM stands E 1965-98 ,as it pertains to infrared thermometers and when used under normal operating conditions.

We at Summer Infant stand behind all of our products. If you are not completely satisfied or have any questions, please contact our Customer Service Department at 1-800-268-6237 or e-mail us at customerservice@summerinfant.com.

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